

# Crossroads Captured: Decoding the Tapestry of Red Light Camera Violations in Ottawa 2023

By Ben Williams on December 21st



Figure 1: Photo of a Red Light Camera sign captured on Richmond Road

# Introduction

In the crowded cityscape of Ottawa, Ontario, the intersection of technology, traffic management along with public safety takes center stage in a very complex tale captured by the lenses of red light cameras. As time has passed on throughout the year of 2023, these ever-watchful cameras have captured the story of red light camera violations on Ottawa's streets through a trail of data, unveiling the narrative. Beyond the mere numbers lies a compelling story, more specifically one that explores the connections between laws, human behaviour and the changing city traffic scene. Moreover, this story will seek to illuminate the broader narrative that lies beneath the surface of these seemingly routine infractions. Within this story additionally, we will explore the data, attempt to decipher the patterns, understand the implications, and lastly uncover the human side story dealing with the red light camera violations in Ottawa throughout 2023.

To further illustrate this story, I will incorporate the use of a dataset of the Red Light Camera Violations in 2023 imported onto Google sheets. This dataset was further uploaded into the [City of Ottawa's Open data portal](#) by a private member of the City of Ottawa.

## Primary Observations: The Data

Upon first glance, I noticed that this dataset includes a collection of the red-light camera violations per month this year in which the accuracy is described to be in good faith. Although, the private author of this dataset also added to their comment on its accuracy:

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My level of concern was still at a low for the most part, that was until the inadequacy of information was evident off first glance however. I had noticed that the summaries of red light camera violations throughout the months of November and December were full of invalid values that were marked with "TBD" (To be decided). As a result, this left me to only work with the data provided from the beginning of January to the end of October. The outlier values displayed throughout the dataset left me with a lot of questions as well as I noticed a significant number of values that were larger compared to the others such as 0, 523, and 4064 for example. Despite all this and the numerous typos written across the spreadsheet, the open portal additionally noted that its last update to this data summary was recently on December 11th, 2023, giving me more reason to believe the data is indeed up to date and somewhat valid.

Copy of Red Light Camera Violations 2023	File	Edit	View	Insert	Format	Data	Tools	Extensions	Help	Share					
SEARCH	BACK	FORWARD	REFRESH	100%	£ % .0 .00	123	Default...	-	10 + B I A	DOWN	RIGHT	UP	LEFT	SEARCH	SHARE

A1	INTERSECTION	CAMERA_INST/LATITUDE	LONGITUDE	X	Y	FACIL	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
1	WALKEY @ HAWTHORPE	2008 45.39294866	-75.60758145	374674.7381	5028499.542	Eastbound	36	31	45	66	71	6
2	ST LAURENT @ BELLEVILLE	2008 45.41183341	-75.63045981	372860.726	5030578.562	Southbound	19	30	26	27	50	1
3	CAMPEAU @ HWY 4	2008 45.32259424	-75.8871873	352841.6241	5020476.478	Northbound	39	40	32	45	36	4
4	CATHERINE @ KENYON	2008 45.40877852	-75.69378269	367907.7071	5030188.565	Westbound	0	0	0	0	0	0
5	BASELINE @ MERIVILLE	2008 45.36528328	-75.73082093	365054.6989	5025325.524	Westbound	36	21	23	33	30	1
6	BANK @ HUNT CLUISE	2008 45.35363104	-75.64733066	371608.731	5024096.514	Eastbound	27	27	39	34	51	1
7	CATHERINE & O'COI	2008 45.41059369	-75.68946437	368243.7079	5030392.567	Westbound	0	0	0	0	8	1
8	BOOTH @ WELLING	2009 45.41629602	-75.71467416	366264.257	5031006.688	Eastbound	15	16	19	17	19	1
9	TENTH LINE / CHAFFEY	2008 45.47732608	-75.4974114	383183.9299	5037977.882	Southbound	28	24	22	26	28	1
10	BANK @ RIVERSIDE	2008 45.38882841	-75.67723452	369225.7159	5027983.546	Westbound	15	15	6	11	18	1
11	CARLING @ ISLAND	2008 45.38919155	-75.72662713	365357.6989	5027985.547	Eastbound	20	46	72	64	122	1
12	KING EDWARD @ S	2011 45.43246674	-75.68908746	368248.7041	5032823.589	Southbound	247	250	189	361	532	5
13	BRONSON @ COMMERCIAL	2010 45.41572863	-75.70823681	366768.7019	5030948.573	Southbound	0	0	0	0	0	0
14	ALBERT @ BOOTH	2010 45.41291178	-75.71265182	366426.212	5030632.794	Eastbound	0	0	0	0	0	0
15	BANK @ HERON	2010 45.37857171	-75.66755153	369995.72	5026851.536	Northbound	32	42	61	44	64	1
16	CYRVILLE @ INNES	2010 45.41648492	-75.60244499	375047.734	5031119.561	Westbound	0	0	0	0	0	0
17	DUFORD / PLACE D'ARMES	2010 45.47762664	-75.51259116	381996.7441	5037996.587	Westbound	40	0	45	86	81	1
18	BERRIGAN @ WESS	2010 45.2749753	-75.74900599	363723.6849	5015276.436	Southbound	0	40	0	0	0	0
19	HOLLAND & ISLAND	2010 45.38857382	-75.72576713	365425.7	5027917.547	Southbound	33	27	45	36	39	1
20	CONROY @ LORRY	2010 45.36947236	-75.62207744	373568.186	5025878.183	Southbound	15	14	15	10	13	1
21	AVIATION PARKWAY	2010 45.42798671	-75.62701694	373110.723	5032376.576	Westbound	11	7	6	22	26	1
22	ELGIN / PRETORIA EAST	2010 45.41131111	-75.68406267	368665.7101	5030476.567	Eastbound	95	98	89	90	134	1
23	FISHER @ MEADOW	2010 45.36263085	-75.71144959	366575.0649	5025045.446	Southbound	66	44	56	39	56	0

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A1	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL_VIOLATIONS
2	36	31	45	66	71	62	88	51	72	65 TBD	TBD	587	
3	19	30	26	27	50	38	41	28	35	24 TBD	TBD	318	
4	39	40	32	45	36	43	35	47	44	46 TBD	TBD	407	
5	0	0	0	0	0	0	0	0	0	0 TBD	TBD	0	
6	36	21	23	33	30	38	29	42	34	31 TBD	TBD	317	
7	27	27	39	34	51	56	56	70	48	54 TBD	TBD	462	
8	0	0	0	0	8	26	177	129	152	131 TBD	TBD	623	
9	15	16	19	17	19	23	21	41	40	36 TBD	TBD	247	
10	28	24	22	26	28	32	35	30	25	24 TBD	TBD	274	
11	15	15	6	11	18	0	0	0	0	0 TBD	TBD	65	
12	20	46	72	64	122	96	161	83	124	114 TBD	TBD	902	
13	247	250	189	361	532	523	548	478	452	484 TBD	TBD	4064	
14	0	0	0	0	0	0	0	0	0	0 TBD	TBD	0	
15	0	0	0	0	0	0	0	0	0	0 TBD	TBD	0	
16	32	42	61	44	64	47	55	61	55	44 TBD	TBD	505	
17	0	0	0	0	0	0	0	0	0	0 TBD	TBD	0	
18	40	0	45	86	81	90	91	96	79	47 TBD	TBD	655	
19	0	40	0	0	0	0	0	0	0	0 TBD	TBD	40	
20	33	27	45	36	39	43	33	39	29	25 TBD	TBD	349	
21	15	14	15	10	13	11	17	14	10	15 TBD	TBD	134	
22	11	7	6	22	26	15	18	21	16	16 TBD	TBD	158	
23	95	98	89	90	134	136	228	179	124	117 TBD	TBD	1290	
24	66	44	56	39	56	64	80	67	55	58 TBD	TBD	585	

Figure 2: Datasheet produced on Google Sheets

## The Dance of the Signals

First and foremost, the story begins at the heartbeat of the city, more specifically its intersections which are known as the busiest spots in the city. After thoroughly scanning through the data, I discovered that there were about 85 intersections in which a red light camera was installed, most of which were facing eastbound (28.84%), and the least facing Westbound (20%). For a greater visual, I

decided to use this dataset and create a map with Google My Maps while also layering on a dataset of the wards across the city of Ottawa uploaded by the City of Ottawa's Open data portal. As a result, the map produced the illustration below:



**Figure 3: Interactive Map Created with Google My Maps**

## Unmasking the culprits

The statistics from the dataset may reveal one thing, but the map illustrated here portrays another tale. When filtering the intersections from the rest of the data, the percentage of the red light cameras favoured the eastbound section through the City of Ottawa's open data portal. From what is shown on this map however, it seems as if the law enforcement should be seriously concerned about the road activity transpiring in the direction of southbound, particularly through the intersection of King Edward and St-Partick. When clicking on the camera icon located in the Rideau-Vanier ward, we can see that there was a high volume of red light camera violations recorded across that area. Using the data provided from City of Ottawa's Open portal in which I also cleaned, I was able to produce an interactive stacked bar chart and see how the top five intersections with the most red light camera violations stacked against each other. The final result provided me with this graphic below:

## Top 5 Intersections for Red Light Camera Violations captured within the first ten months of 2023

Northbound	Southbound	Westbound
KING EDWARD at ST. PATRICK, Ottawa, Ontario, Canada		4,064
WELLINGTON ST at BAY ST, Ottawa, Ontario, Canada		2,405
VANIER PARKWAY at PRESLAND, Ottawa, Ontario, Canada		2,080
KING EDWARD at ST. ANDREW, Ottawa, Ontario, Canada		2,866
WALKLEY at RYDER / DON RIED, Ottawa, Ontario, Canada		1,736

Chart: Ben Williams • Source: [Original Dataset](#) • [Get the data](#) • Created with [Datawrapper](#)

**Figure 4: Red Light Camera Violations graph made with Datawrapper**

Throughout this graphic, we can see that the highest number of total violations was 4064, which happens to be upon the same row as the intersection of King Edward and St-Patrick. This is just one of the many high numbers of violations illustrated across the datasheet that reinforces the notion that drivers in Ottawa, especially those driving in King Edward Avenue, have continuously practised bad driving habits.

## The Impact on Traffic Safety

Quite frankly, the time has come to address this lingering issue to the public and assure that drivers in Ottawa are abiding by the law in the context of red light cameras to ensure everyone's safety, including their own. Consequences such as the increased risk of accidents, traffic congestion, fines and legal issues are just some of the many outcomes that could arise from just one notable driver failing to respect procedures and rules of a red light camera. Furthermore, it is crucial that we shed some light on these implications and especially these numbers to further educate drivers from Ottawa on how impactful running a red light could be on its surroundings. Throughout the past week, I caught up with a veteran member of the Ottawa Police law enforcement by the name of Darren Joseph to hear some of his insights on this phenomenon. When asked about how the implementation of red camera lights impacted overall traffic safety he responded saying:

"It's made people a lot more aware because in places where there were no cameras previously, you're seeing a high rate of traffic tickets and electronic tickets being issued to people. It's definitely a revenue stream for Ottawa but the main goal is make sure people are aware of speeding in residential areas and certain roads out of the city, so you're going to see more red light cameras placed throughout the city moving forward. "



DJ/Community Officer OPS

**Figure 5: Photo of interviewee Darren Joseph from the Ottawa Police Department**

Interestingly enough, he firstly mentions that there was a high rate of traffic and electronic tickets being issued to people in places where there were previously no cameras. This may explain why numerous cameras are currently installed around the intersection of King Edward and St. Patrick street. This issue here is that not many Ottawans, and especially Ottawa drivers, are aware of this phenomenon, leading them to continuously perform the same bad driving habits throughout the roads of the city. As a result, red light camera numbers, along with its legal fines, are only going to significantly increase across Ottawa as time passes on.

## The Human Faces of Violations

In the realm of red light camera violations, we have now seen the facts through the data, the graphs, and also the administrators. Numbers alone can sometimes fail to capture the human side of the story however. Through an interview with an Ottawa driver named Duane Parks who also has nearly 40 years of driving experience, I was able to gain a broader understanding of his experience from receiving a red light camera ticket and how drivers in Ottawa like him may feel about red light cameras. In detailed manner, he mentions:

"I was very unhappy to receive it. In the summary I had received, the light had been red for one tenth of a second and that had cost me, including surcharges, a set fine of 328 dollars. I was

completely shocked that it was 328 dollars" he repeated in a staggered tone. "I think it's a lot of money and I feel for all the drivers, and particularly those who are maybe in less financial capability to pay those fines. It's just a ridiculous amount of money."

He also added another very interesting comment as well by adding:

"If you spend any time professionally out driving around, which I do, you just have to plan for the vicinity now of your automobile expenses another 1000 dollars a year. With the increase in red light cameras in radar enforced areas, no matter how conscious you are, you are 10km over on the radar enforced areas that's 48 bucks. If you're 11km over, then that's 112 dollars. Again, that's a lot of money. But the red light for 325 bucks, just too much money."



**Figure 6: Photo of Ottawa driver interviewee Duane Parks**

From a human's perspective, it's almost with full certainty that while red light cameras may be beneficial for safety reasons, they can put drivers in a world of disadvantage as well. As explained by mr. Parks, one tenth of a second was the key difference in him receiving a red light camera ticket. In the same story during the interview however, he also recalled another driver that was tailing his car a little too close behind him and had also honked at him in the process as well. This forced him to move his car way past the line throughout in the process of the traffic light turning yellow. Due to having no room to manoeuvre around however, he was left with no other option but to drive past the traffic light as soon as it turned red, prompting the camera to capture his violation. While red light cameras are installed to capture bad habits performed by drivers, they are incapable of capturing the

full story as to how the violation occurred. On top of having to deal with the risk of red light camera risks, these drivers are having to deal with such high volumes of fines as well. As mentioned by Duane Parks:

For some people or some students, 300 dollars could be a quarter of their rent or worth their groceries for that matter. Think of the families that are struggling, some people need to drive to work to make money to pay their bills. The city's way of generating revenues and taxation is ridiculous."

Once again, from a human perspective, it is clear that the city is not only focused on creating a safe environment for drivers. Moreover, these high-priced violation tickets could eventually lead to many drivers or even families in serious debt, meaning they could face the potential risk of losing some of their belongings such as their vehicle.

## **Conclusion: Policy perspectives and Future Horizons**

As we approach the conclusion of this data-driven odyssey, we need to step back to assess the broader implications and consider the policy landscape. Moreover, the high volume of violations calls for a need of improved public awareness regarding the presence and significance of red light cameras. Additionally, there is a serious need for continuous monitoring and evaluation. The need of regular assessments on the impact of interventions and adjustments based on ongoing data is necessary to ensure a proactive and adaptive approach to traffic safety. Additionally, the location of red-light cameras are very crucial as adjusting the cameras based on the data driven assessments can make enforcing the rules even more effective. Finally, the city may need to consider possibly lowering the fines for red light camera violations. The elevation of fines could potentially motivate and perpetuate drivers to perform safe driving habits to avoid having to pay such high costs. However, the city needs to consider the fact that not all drivers may have the means to pay these costs, notably drivers who come from low-income families or students who are having to pay rent and tuition for example.

With all that being said, as we navigate the intersections of technology, behaviour, and public policy, join us in striving together to illuminate the multifaceted story embedded in the data-driven tapestry of city life.



**Figure 7: Photo of a red light camera set up at an intersection of Ottawa (Pringle, 2023)**